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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/730,849	12/07/2000	Takuo Funaya	Q62153	9306

7590 09/03/2003

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2100 Pennsylvania Avenue, N.W.  
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EXAMINER
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NHU, DAVID

ART UNIT	PAPER NUMBER
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2818

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/730,849

Applicant(s)

FUNAYA ET AL.

Examiner

David Nhu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 9-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

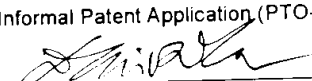
## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: 

## FINAL ACTIONS

### DETAILED ACTIONS

#### *Election/Restrictions*

1. *Applicant's election of Group I (Claims 1-8) in page No.6 is acknowledge.*

*Claims 1-8 are remained for examination. Accordingly, claims 9-11 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.*

#### **Specifications**

2. *Arrangement of the Specification:*

The following order or arrangement is preferred in framing the specification and, except for the reference to "Microfiche Appendix" and the drawings, each of the lettered items should appear in upper case, without underlining or bold type, as section headings. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) Title of the Invention.
- (b) Cross-References to Related Applications.
- (c) Statement Regarding Federally Sponsored Research or Development.
- (d) Reference to a "Microfiche Appendix" (see 37 CFR 1.96).
- (e) Background of the Invention.
  - 1. Field of the Invention.
  - 2. Description of the Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) Brief Summary of the Invention.**
- (g) Brief Description of the Several Views of the Drawing(s).
- (h) Detailed Description of the Invention.
- (i) Claim or Claims (commencing on a separate sheet).
- (j) Abstract of the Disclosure (commencing on a separate sheet).
- (k) Drawings.
- (l) Sequence Listing (see 37 CFR 1.821-1.825).

***Missing a brief summary of the invention.***

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***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3, 5, 7, 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 5, 7, 8 are not clear as "**would**" because it can not use in claims.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo et al (5,283,468).

**Regarding claim 1**, Kondo, figures 1-45, and related text on col. 1-42, (figures 5a-5b, 6a-6b, 18a-18b, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67, col. 11-12, lines 1-67, col. 13, lines 11-60), disclose an assembly in which a plurality of electronic devices 101, 104, 125 of different kinds are connected to a single electronic device, said electronic devices are connected to each other by conductive portions 107, 108, 109, implemented by metal, but insulated from each other by insulating portions 111 implemented by an adhesive, sealable, patterned resin layer 123 (see col. 17, lines 17-21).

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**Regarding claim 2**, Kondo, col. 8, lines 1-30, col. 13, lines 12-35, teach the resin layer is thermosetting and photosensitive.

**Regarding claim 3**, Kondo, figures 5a-5b, 6a-6c, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67, teach the resin layer 123 is so patterned as to be absent around wiring portions 121 protruding from said electronic devices 101, around portions of circuit surface 104 of said electronic devices where resin forming said resin layer is effect a device characteristic, around electrode pads 102, 105, and around bumps 107, 108, 109 formed on said electrode pads.

**Regarding claim 4**, Kondo, col. 12, lines 47-67, col. 13, lines 1-45, teach the resin layer has a function for flip chip bonding and a function for passivation.

**Regarding claim 5**, Kondo, figures 5a-5b, 6a-6c, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67, teach the resin layer 123 is so patterned as to be absent around wiring portions 121 protruding from said electronic devices 101, around portions of circuit surface 104 of said electronic devices where resin forming said resin layer is effect a device characteristic, around electrode pads 102, 105, and around bumps 107, 108, 109 formed on said electrode pads. See figures 5a-5b, 6a-6c, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67.

**Regarding claim 6**, Kondo, col. 12, lines 47-67, col. 13, lines 1-45, teach the resin layer has a function for flip chip bonding and a function for passivation.

**Regarding claim 7**, Kondo, figures 5a-5b, 6a-6c, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67,

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teach the resin layer 123 is so patterned as to be absent around wiring portions 121 protruding from said electronic devices 101, around portions of circuit surface 104 of said electronic devices where resin forming said resin layer is effect a device characteristic, around electrode pads 102, 105, and around bumps 107, 108, 109 formed on said electrode pads.

**Regarding claim 8**, Kondo, figures 5a-5b, 6a-6c, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67,

teach the resin layer 123 is so patterned as to be absent around wiring portions 121 protruding from said electronic devices 101, around portions of circuit surface 104 of said electronic devices where resin forming said resin layer is effect a device characteristic, around electrode pads 102, 105, and around bumps 107, 108, 109 formed on said electrode pads.

**Regarding claim 12**, Kondo, figures 1-45, and related text on col. 1-42, (figures 5a-5b, 6a-6b, 18a-18b, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67, col. 11-12, lines 1-67, col. 13, lines 11-60), disclose an assembly of a plurality of electronic devices, comprising: a first electronic device 101 connected to other electronic devices 125, 104 by conductive portions 107, 108, 109 formed of metal, but insulated from said other electronic devices by insulating portions 111 that comprise an adhesive, sealable, patterned resin layer 123; a second electronic device 104 connected to said first electronic device 101; and a third electronic device 125 positioned between said first electronic device 101 and said second electronic device 104 and connected to said second electronic device 104.

### Conclusion

7. The prior art made of record and not relied upon is considered pertinent to

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applicant's disclosure: Pasch'624, Black'008 are cited as of interest.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication on earlier communications from the examiner should be directed to David Nhu, (703) 306- 5796. The examiner can normally be reached on Monday-Friday from 7:30 AM to 5:00 PM. The examiner's supervisor, David Nelms can be reached on (703) 308-4910.

*The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7724.*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956

David Nhu 

August 24, 2003

